AMENDMENTS TO THE CLAIMS

1. (Currently amended) A purified polynucleotide encoding a neuralized (Neu) [[Neu]] polypeptide, wherein said Neu polypeptide comprises at least one neuralized homology repeat domain and a C3HC4 RING-zinc finger domain, [~~wherein the Neu polypeptide functions as a transcription regulator~~] and wherein said polynucleotide has at least 85% homology to a sequence selected from the group consisting of SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.

2. (Withdrawn) The purified polynucleotide of claim 1, wherein the neuralized homology repeat domain comprises SEQ ID NO. 48.

3. (Cancelled)

4. (Currently amended) The purified polynucleotide [[acid]] of claim 1, wherein ~~the nucleic acid~~ said polynucleotide has at least 90% homology to a sequence selected from the group consisting of ~~SEQ ID NOs:~~ SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.

5. (Currently amended) The purified polynucleotide [[acid]] of claim 1, wherein ~~the nucleic acid~~ said polynucleotide has at least 95% homology to a sequence selected from the group consisting of [~~SEQ ID NOs:~~] SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.

6. (Currently amended) The purified polynucleotide of claim 1, wherein said polynucleotide comprises a sequence selected from the group consisting of ~~SEQ ID NOs:~~ SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.

7. (Currently amended) An isolated polynucleotide ~~capable of hybridization~~ which hybridizes under stringent hybridization conditions to a sequence selected from the group consisting of ~~SEQ ID NOs:~~ SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.

8. (Cancelled)

9. (Original) The isolated polynucleotide of claim 7, wherein the stringent hybridization conditions comprise hybridization of the isolated polynucleotide in the presence of 2x SSC/0.1% SDS at about 42°C.

10. (Original) The isolated polynucleotide of claim 7, wherein the stringent hybridization conditions comprise hybridization of the isolated polynucleotide in the presence of 2x SSC/0.1% SDS at about 68°C.

11. (Withdrawn) A purified Neu polypeptide, wherein said Neu polypeptide comprises at least one neuralized homology repeat domain and a C3HC4 RING-zinc finger domain.

12. (Withdrawn) The purified Neu polypeptide of claim 11, wherein the neuralized homology repeat domain comprises SEQ ID NO. 48.

13. (Withdrawn) The purified Neu polypeptide of claim 11, wherein the polypeptide comprises an amino acid sequence with at least 80% sequence homology to an amino of acid sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32 and 34.

14. (Withdrawn) The purified Neu polypeptide of claim 11, wherein the polypeptide comprises an amino acid sequence with at least 85% homology to an amino of acid sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32 and 34.

15. (Withdrawn) The purified Neu polypeptide of claim 11, wherein the polypeptide comprises an amino acid sequence with at least 90% homology to an amino of acid sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32 and 34.

16. (Withdrawn) The purified Neu polypeptide of claim 11, wherein the polypeptide comprises an amino acid sequence with at least 95% homology to an amino of acid sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32 and 34.

17. (Withdrawn) The purified Neu polypeptide of claim 11, wherein the polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32 and 34.

18. (Withdrawn) An antibody capable of specifically binding to a Neu polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32 and 34.

19. (Withdrawn) The antibody of claim 18, wherein said antibody specifically binds to a polypeptide comprising at least 10 consecutive amino acids of said protein.

20. (Withdrawn) The antibody of claim 18, wherein the antibody is a monoclonal antibody.

21. (Original) An expression vector comprising a polynucleotide according to claim 1.

22. (Original) The expression vector of claim 21, wherein the vector is a plasmid.

23. (Original) A host cell containing the expression vector of claim 21.

24. (Currently amended) A method of making a Neu protein, comprising: obtaining a ~~nucleotide sequence~~ polynucleotide comprising a nucleotide sequence encoding a Neu protein[[;]] , inserting said ~~nucleotide sequence~~ polynucleotide [[in]] into an expression vector such that said nucleotide sequence is operably linked to a promoter [[;]] , and introducing said expression vector into a host cell, wherein said nucleotide sequence is at least 85% homologous to a nucleotide sequence selected from the group consisting of SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33, and whereby said host cell produces [[a]] said Neu protein encoded by said nucleotide sequence.

25. (Currently amended) The method of claim 24, wherein ~~the Neu polypeptide encoding~~ said nucleotide sequence is selected from the group consisting of ~~SEQ ID NOs:~~ SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.

26. (Currently amended) The method of claim 24, further comprising isolating said Neu protein.

27. (Currently amended) A vector comprising a ~~Neu polypeptide encoding~~ nucleotide sequence, wherein said nucleotide sequence encodes a Neu polypeptide, wherein said nucleotide sequence is operably associated with a ~~promotor~~ promoter, and wherein said nucleotide sequence is at least 85% homologous to a nucleotide sequence selected from the group consisting of SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.

28. (Currently amended) The vector of claim 27, wherein ~~the Neu polypeptide encoding~~ said nucleotide sequence is selected from the group consisting of ~~SEQ ID NOs:~~ SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.

29. (Currently amended) A method of constructing a transformed host cell that expresses a Neu protein, comprising: providing a ~~Neu protein encoding~~ polynucleotide ~~sequence capable of expressing the encoded Neu protein~~ that comprises a nucleotide sequence encoding a Neu protein, and transforming [[a]] said host cell with ~~Neu protein encoding~~ said polynucleotide, wherein said polynucleotide is capable of expressing said encoded Neu protein in said transformed host cell, and wherein said nucleotide sequence is at least 85% homologous to a nucleotide sequence selected from the group consisting of SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33,

30. (Withdrawn) A method of identifying a binding partner that interacts with a Neu family protein comprising: providing a support comprising a Neu protein or a functional fragment thereof; contacting the support with a candidate binding partner; and detecting a biological complex comprising the Neu protein and the candidate binding partner, wherein detection of such complex indicates that said candidate binding partner interacts with the Neu protein.

31. (New) A purified polynucleotide encoding a Neu polypeptide, wherein said Neu polypeptide comprises at least one neuralized homology repeat domain and a C3HC4 RING-zinc finger domain, and wherein said Neu polypeptide has at least

about 85% homology to an amino acid sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, and 34.

32. (New) The purified polynucleotide of claim 31, wherein said Neu polypeptide has an amino acid sequence selected from the group consisting of SEQ ID NO: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, and 34.

33. (New) The method of claim 29, wherein said nucleotide sequence is selected from the group consisting of SEQ ID NO: 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31 and 33.